REMARKS

Favorable reconsideration, reexamination, and allowance of the present patent application are respectfully requested in view of the foregoing amendments and the following remarks.

The amendments are made to clarify the invention and further prosecution in response to the outstanding rejections. Support for all the amendments can be found in the specification and/or the original claims, specifically in the specification at paragraphs [0026], [0029], [0041], and [0046].

Summary of Interview Held February 10, 2005

Applicant's representative greatly appreciates the very helpful interview held February 10, 2005. In the interview, proposed claim language was discussed, and the Examiners made helpful suggestions for improving and clarifying the claims.

The Information Disclosure Statement

In paragraph 8 of the Official Action, the Examiner noted that a document cited in the Information Disclosure Statement filed April 6, 2004 was not complete. A complete copy of this reference is provided herewith, along with another copy of the previously submitted PTO-1449. Applicants respectfully request consideration of this reference and indication on the PTO-1449 via the Examiner's initials.

Compliance with the Sequence Rules

In paragraph 10 of the Official Action, the Examiner noted that the statement filed under 37 C.F.R. 1.821(g) regarding the sameness of the CRF and the paper copy of the Sequence Listing was not signed. A new signed statement is submitted herewith. Applicants apologize for this oversight.

Objections to the Specification

In paragraph 11 of the Official Action, the Examiner noted the presence of trademark terms in the specification. The foregoing amendments fully address the

Examiner's objections, and the trademarks used in the specification have been properly identified in accordance with M.P.E.P. 608.01(v).

Objections to the Claims

In paragraph 12 of the Official Action, the Examiner objected to claim 3 for allegedly being of improper dependent form for failing to further limit the subject matter of the previous claim.

The claims have been amended to address the Examiner's objection. Applicants assert that claim 3 as amended properly further limits the subject matter of the claim from which it depends.

For these reasons and in light of the foregoing amendments, applicants respectfully request withdrawal of the objection.

Rejections under 35 U.S.C. §112, 2nd paragraph

In paragraph 13 of the Official Action, the Examiner rejected claims 1-7 under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner has alleged that the term "homologous protein thereof" is unclear as to its metes and bounds. Although applicants do not necessarily agree with the Examiner's allegations, this language has been removed from the claims. For these reasons and in light of the foregoing amendments, applicants respectfully request withdrawal of the rejection.

In paragraph 14 of the Official Action, the Examiner rejected claims 1-4 and 6-7 under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner has alleged that the term "L-lysine analogue" is not defined in the specification, nor is it clearly defined in the art. Although applicants do not necessarily agree with the Examiner's allegations, this language has been removed from the claims. For these reasons and in light of the foregoing amendments, applicants respectfully request withdrawal of the rejection.

In paragraph 15 of the Official Action, the Examiner rejected claims 1-5 under 35

U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. The Examiner has alleged that the term "methanol-assimilating bacterium" is unclear as to its metes and bounds.

As a first point, the Examiner has pointed to paragraph [0029] of the specification, and specifically the recitation of "major carbon source," alleging that the specification does not provide a standard for ascertaining the requiste degree, and that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Exact numbers are not required for such description, since one of ordinary skill in the art would know that "major" means that the carbon source is the predominant source. The word 'major' has a clear and unambigous meaning, and is used properly to describe the carbon source in this context.

As a second point, the Examiner has asserted that the definition for a "methanol-assimilating bacterium" as set forth in the specification is contradictory with the accepted meaning. Although applicants do not necessarily agree with the Examiner, the definition in the specification has been amended so that it is consistent with the accepted meaning in the art.

For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

In paragraph 16 of the Official Action, the Examiner rejected claims 2-4 under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distincly claim the subject matter. The Examiner alleges that the phrase "at least the glycine residue at position 56" is unclear as to its metes and bounds. Although applicants do not necessarily agree with the Examiner, the claims have been amended to delete the phrase "at least." For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

In paragraph 17 of the Official Action, the Examiner rejected claim 3 under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distincly claim the subject matter. The Examiner alleges that the phrase "stringent conditions" is not defined. Although applicants do not necessarily agree with the Examiner, the claims have been amended to insert the specific conditions. For these reasons and in light of the foregoing amendments, applicants respectfully request the

rejection be withdrawn.

In paragraph 18 of the Official Action, the Examiner rejected claim 3 under 35 U.S.C. §112, 2nd paragraph as allegedly being indefinite for failing to particularly point out and distincly claim the subject matter. The Examiner alleges that the claim is confusing for recitation of a wild-type LysE protein, and the claim is dependent on claim recitation a mutant LysE protein. Although applicants do not necessarily agree with the Examiner, the claims have been amended to clarify this point. For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

The Rejections under 35 U.S.C. §112, 1st paragraph

In paragraph 19 of the Official Action, the Examiner rejected claims 1-7 under 35 U.S.C. §112, 1st paragraph as allegedly containing subject matter which is not adequately described. Although applicants do not necessarily agree with the Examiner, the claims have been amended to recite specific structural features, as well as the function of the protein encoded by the claimed DNA. The claims now recite that the DNA encodes a protein which can have mutations which result in up to 10 amino acid mutations. Support for this amendment can be found on page 9 of the specfication, paragraph [0041]. For the encoded protein, this equals a homology of up to 95.8%. Clearly, applicants description in the specification and mutational analysis for the LysE protein provide sufficient information for one of ordinary skill in the art to recognize that applicants were in possession of the claimed invention. For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

In paragraph 20 of the Official Action, the Examiner rejected claims 1-7 under 35 U.S.C. §112, 1st paragraph as allegedly not being enabled for the genus of claimed DNA. Although applicants do not necessarily agree with the Examiner, the claims have been amended to recite specific structural features, and well as the function of the protein encoded by the claimed DNA. As stated above, the claims now recite that the DNA encodes a protein which can have mutations which result in up to 10 amino acid mutations. Clearly, the specfication provides sufficient enablement for the scope of claims as amended, since one of ordinary skill in the art would be enabled to make and

use the invention as claimed without undue experimentation in light of the specification and the knowledge in the art concerning the LysE protein. For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

The Rejection under 35 U.S.C. §101

In paragraph 21 of the Official Action, the Examiner rejected claims 1-6 under 35 U.S.C. §112, 1st paragraph for allegedly being directed to non-statutory subject matter. Although applicants do not necessarily agree with the Examiner's rejection, the claims have been amended to recite that the DNA is "isolated", and therefore has been subject to the 'hand of man'. For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

The Rejection under 35 U.S.C. §102(b)

In paragraph 22 of the Official Action, the Examiner rejected claim 1 under 35 U.S.C. §102(b) for allegedly being anticipated by Vrljic et al. as evidenced by Pompejus et al.. Vrljic et al. teaches the wild-type LysE protein. Claim 1 has been canceled, and the remaining claims have been amended so that they cannot possibly read on, or be anticipated by, the wild-type protein. For these reasons and in light of the foregoing amendments, applicants respectfully request the rejection be withdrawn.

Conclusion

For at least the foregoing reasons, Applicant respectfully submits that the present patent application is in condition for allowance. An early indication of the allowability of the present patent application is therefore respectfully solicited.

If Examiner Odell believes that a telephone conference with the undersigned would expedite passage of the present patent application to issue, he is invited to call on the number below.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and the undersigned respectfully requests that she be contacted immediately.

Respectfully submitted,

By: _____

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